Discrimination analysis of hybrid Pangasianodon hypophthalmus (Sauvage, 1983) (♀) × Pangasius nasutus (♂) (Bleeker, 1976) and its parental species

ABSTRACT

Comparative analysis was performed to discriminate a hybrid produced from the crossbreed of Pangasianodon hypophthalmus (♀) and Pangasius nasutus (♂) and its parental species based on morphology appearances and morphometric characters. Morphological structures of the vomerin and palatal teeth varied between the hybrid and both parents. Results of the univariate analysis revealed 22 morphometric characters were significantly different between the hybrid and its parental species. Under the stepwise discriminate function analysis, the first Function explained 86.10% of total variations and 13.90% in Function 2. Of the 30 characters, only 10 characters which include prepelvic, caudal peduncle length, dorsal fin length, pectoral fin length, anal fin height, anal fin length, adipose fin length, interorbital length, distant to isthmus, and predorsal length can be used to significantly differentiate these species. The predicted fish groups exhibited characters which 100% differentiate and validate them into their respective group. Examination on vomerin and palatal teeth distinct the hybrid and its parental species.

Keyword: Discriminate function analysis; Morphometric; Pangasianodon hypophthalmus; Pangasius nasutus; Hybrid